



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: TAY 651 BYPASS RATIO: 3.0
 UNIQUE ID NUMBER: 3RR032 PRESSURE RATIO (π_{00}): 16.4
 COMBUSTOR: Pedhead
 ENGINE TYPE: MTF RATED THRUST (F_{00}) (kN): 68.5

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	6.3	82.2	46.9	12.7
AS % OF ORIGINAL LIMIT	32.1	69.6	64.4	48.4
AS % OF CAEP/2 LIMIT (NO _x)			80.5	
AS % OF CAEP/4 LIMIT (NO _x)			94.6	
AS % OF CAEP/6 LIMIT (NO _x)			102.2	
AS % OF CAEP/8 LIMIT (NO _x)			120.3	

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 x OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.870	0.09	0.75	17.56	5.6
CLIMB OUT	85	2.2	0.720	0.19	0.51	13.77	7.9
APPROACH	30	4.0	0.260	0.12	1.64	5.42	4.0
IDLE	7	26.0	0.120	1.32	23.26	2.52	0.6
LTO TOTAL FUEL (kg) or EMISSIONS (g)			381	276	4532	2760	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				1	4	4	4
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				4.1	66.9	40.5	9.9
SIGMA (D _p /F ₀₀ in g/kN, or SN)							
RANGE (D _p /F ₀₀ in g/kN, or SN)					64.2-69.8	39.7-41.1	9.3-10.4

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	
TEMPERATURE (K)	283
ABS HUMIDITY (kg/kg)	0.0068-0.0081

FUEL

SPEC	AVTUR
H/C	1.95
AROM (%)	16.1

MANUFACTURER: Rolls-Royce plc
 TEST ORGANIZATION: Rolls-Royce plc
 TEST LOCATION: SINFIN-Derby
 TEST DATES: 01/06/1997

REMARKS

1. Pedhead combustor

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)